

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application. Currently amended claims are shown with additions underlined and deletions in ~~striketrough~~ text. No new matter is added by these amendments.

Listing of Claims:

1. (Previously presented) An expression-varying device for a toy comprising:

a first facial element; and

a drive coupled to said facial element, said drive including a shaft, a disk mounted on said shaft, and an arm member engaged with said disk and coupled to said facial element, rotation of said shaft rotating said disk, which in turn moves said arm member, which imparts movement in a first direction and in a second direction substantially perpendicular to said first direction to said first facial element.
2. (Previously presented) The expression-varying device of claim 1, wherein said first facial element is an eyeball body.
3. (Previously presented) The expression-varying device of claim 1, wherein said arm member includes a pin, said disk includes a groove formed therein, and said pin engages said groove.
4. (Canceled)

5. (Previously presented) The expression-varying device of claim 3, further comprising:

a frame supporting said drive; and

a spring coupled to said frame and said arm member to bias said pin into engagement with said groove.

6. (Previously presented) The expression-varying device of claim 1, further comprising:

a frame supporting said drive; and

a plate coupled to said frame, wherein said plate defines an opening into which a portion of said first facial element extends.

7. (Previously presented) The expression-varying device of claim 1, further comprising:

a frame;

a plate coupled to said frame;

a first coupling shaft pivotally mounted with respect to said plate, said first coupling shaft including a tip end and a rear end;

a second facial element coupled to said tip end of said first coupling shaft; and

a first crank coupled to said rear end of said first coupling shaft, said first crank engaging said drive, wherein upon rotation of said shaft, said first crank moves and said first coupling shaft pivots, thereby imparting movement to said second facial element.

8. (Previously presented) The expression-varying device of claim 7, wherein said drive includes a first cam mounted on said shaft, said first cam having a wave-form surface with projections and indentations formed on a circumferential edge of said first cam, said first crank having a first engaging shaft formed thereon, and said first engaging shaft engages said wave-form surface as said first cam rotates.

9. (Previously presented) The expression-varying device of claim 8, further comprising:

a second coupling shaft pivotally mounted with respect to said plate, said second coupling shaft including a tip end and a rear end;

a third facial element coupled to said tip end of said second coupling shaft; and
a second crank coupled to said rear end of said second coupling shaft, said second crank engaging a second cam mounted on said shaft, wherein upon rotation of said shaft, said second crank moves and said second coupling shaft pivots, thereby imparting movement to said third facial element.

10. (Previously presented) The expression-varying device of claim 9, further comprising:

a spring connected between said first crank and said second crank, wherein said first crank includes a first hook, said second crank includes a second hook, said spring being connected to said first and second hooks, said second crank having a second engaging shaft formed thereon, and said spring biasing said first engaging shaft and said second engaging shaft into engagement with said first cam and said second cam, respectively.

11.-12. (Canceled)

13. (Previously presented) The expression-varying device of claim 7, wherein said first facial element is an eyeball body, said second facial element is an eyebrow body, and said eyeball body and said eyebrow body are moved simultaneously.

14. (Currently amended) A method of producing multiple expressions in a toy comprising:

moving a first facial element in a first direction, said first facial element being an eyeball body;

moving said first facial element in a second direction, the second direction being substantially perpendicular to the first direction; and

moving a second facial element substantially simultaneously with said moving said first facial element in a second direction, said second facial element being an eyebrow body.

15. (Previously presented) The method of claim 14, further comprising:
moving said first facial element to a first position;
moving said second facial element to a second position, the first and second facial elements producing a first expression when in said first and second positions, respectively.

16. (Previously presented) The method of claim 15, further comprising:
moving said first facial element to a third position; and
moving said second facial element to a fourth position, said first and second facial elements producing a second expression when in said third and fourth positions, respectively, said second expression being different from said first expression.

17. (Previously presented) The method of claim 16, wherein said moving a first facial element includes moving said first facial element with a drive including a shaft and a disk mounted to said shaft, and said moving said first facial element to a first position and said moving said second facial element to a second position include rotating said disk to a first rotational position.

18. (Previously presented) The method of claim 17, wherein said moving said facial element to a third position and said moving said second facial element to a fourth position include rotating said disk to a second rotational position, said second rotational position being different from said first rotational position.

19. (Previously presented) The method of claim 18, further comprising:
determining whether said disk is in said second rotational position.

20. (Previously presented) The method of claim 18, further comprising:
detecting the rotational position of said disk; and
comparing said detected rotational position of said disk with a desired rotational position.

21. (Currently amended) The method of claim 14, wherein ~~said first facial element is an eyeball body, said second facial element is an eyebrow body, and~~ said moving a first facial element and said moving a second facial element are coordinated to produce at least two of the following expressions: sleeping, sadness, joy, anger, determination, and inquisitiveness.

22. (Previously presented) The method of claim 14, wherein said moving a first facial element includes moving said first facial element in an upward and downward motion and moving said first facial element in a side to side motion.

23. (Previously presented) An expression-varying device for a toy comprising:
a supporting member pivotally supporting two eyeball bodies for rotation about two substantially perpendicular axes;
a connecting member connecting said two eyeball bodies, said connecting member connecting said eyeball bodies so that said eyeball bodies can pivot simultaneously; and
a drive connected to said connecting member and adapted to cause said two eyeball bodies to move in a first direction and in a second direction substantially perpendicular to said first direction to produce various facial expressions for the toy.

24. (Previously presented) The device of claim 23, further comprising:

coupling shafts supported by said supporting member, said coupling shafts operably coupled to said drive and mounted for rotation relative to said drive; and

eyebrow bodies coupled to each of said coupling shafts and rotated upon the rotation of said coupling shafts.

25. (Previously presented) The device of claim 24, wherein said eyeball bodies and said eyebrow bodies move simultaneously.

26. (Previously presented) An expression-varying device for a toy comprising:

a first facial element; and

a drive coupled to said facial element, said drive including a shaft, a disk mounted on said shaft, and an arm member engaged with said disk and coupled to said facial element, rotation of said shaft rotating said disk, which in turn moves said arm member, which imparts movement in a first direction and in a second direction substantially perpendicular to said first direction to said first facial element, said disk including a center and a groove extending about said center, the distance between said groove and said center varying along said groove, and said groove varying in depth along said groove.

27. (Previously presented) An expression-varying device for a toy comprising:

a first facial element;

a drive coupled to said facial element, said drive including a shaft, a disk mounted on said shaft, and an arm member engaged with said disk and coupled to said facial element, rotation of

said shaft rotating said disk, which in turn moves said arm member, which imparts movement in a first direction and in a second direction substantially perpendicular to said first direction to said first facial element; and

a detection device which detects the rotational position of said disk.

28. (Previously presented) The expression-varying device of claim 27, wherein said drive is supported by a frame, and said detection device includes an indicating part formed on the circumferential surface of said disk and a switch mounted on said frame which opens and closes relative to successive indicating parts as said disk rotates.

29. (Previously presented) The expression-varying device of claim 1, wherein said disk is configured so that rotation of said disk imparts movement to said first facial element in said first direction and in said second direction substantially simultaneously.

30. (Previously presented) The expression-varying device of claim 23, wherein said drive is configured so that said movement of said eyeball bodies in said first direction occurs substantially simultaneously with said movement of said eyeball bodies in said second direction.

31. (Previously presented) The expression-varying device of claim 23, wherein said drive includes a shaft and a disk mounted on said shaft, said disk including a center and a groove extending about said center, the distance between said groove and said center varying along said groove, and said groove varying in depth along said groove.

32. (Previously presented) The expression-varying device of claim 23, further comprising:

a detection device which detects the rotational position of said disk.

33. (Previously presented) The method of claim 14, wherein said moving said first facial element in a first direction occurring substantially simultaneously with said moving said first facial element in a second direction.

34. (Previously presented) The method of claim 14, wherein said first facial element and said second facial element are different types of facial elements.